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INTELLIGENCE COMMUNICATIONS: HAVE WE PUT INTO PRACTICE
THE LESSONS LEARNED IN GRENADA?

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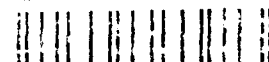
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INTELLIGENCE COMMUNICATIONS: HAVE WE PUT INTO PRACTICE THE
LESSONS LEARNED IN GRENADA?

AN INDIVIDUAL STUDY PROJECT

by

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ABSTRACT

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Lieutenant General James A. Williams (USA, Ret.) was the Director, Defense Intelligence Agency, from 1981 to 1985. During his tenure, he saw the United States' involvement in Grenada and the very obvious communications problems that existed within the Department of Defense. In 1984, with the strong backing of Congress, General Williams announced the formation of the Intelligence Communications Architecture (INCA) Project Office within his agency. He established goals in both the mid- and long-term, with the early 1990s as the expected time to see the benefit of the effort. The deployment of forces to Saudi Arabia in 1990 provided an opportunity to see what progress has been made. The results of this study suggest that many of the same problems still exist. This paper is drawn from articles written by General Williams in 1984, an oral history interview with him, plus a current look at the INCA program and the failures of intelligence communications during Desert Shield/Desert Storm. The paper also projects the need to correct these continuing problems given the emerging doctrine of AirLand Battle Future and the expectation of smaller forces and reduced forward deployment.

As our soldiers return from Saudi Arabia, with the success of Desert Storm in everyone's minds, it might be very easy to overlook some of the problem areas associated with the operation. The overwhelming success of the whole deployment could serve to diminish the magnitude of the things that went wrong. If initial reports are correct, one of those problem areas is an old one -- that of the failure of intelligence communications. We are beginning to hear reports that the communications architecture needed to provide timely intelligence to the Commander in Chief, to his staff, and to the component commanders, was less than perfect. The purpose of this paper is to look at the recent history of intelligence communications architectures, to identify some of the shortcomings, and to provide a focus for future improvements. As the military services look forward to the next decade, we all recognize a future of smaller forces with a larger percentage of that reduced force based in the United States. Cuts in forces and overseas bases will make intelligence harder to get but even more vital to our success as greater time will be needed to react to crises and to prepare for combat.

BACKGROUND

Lieutenant General James A. Williams (USA, Ret.) was the Deputy Chief of Staff for Intelligence in U.S. Army Europe just as the decade of the eighties was beginning. Providing intelligence to the two U.S. Army corps was a

tremendous challenge because communications systems were slow and vulnerable. In discussing those years, he said, "Even as late as 1980, I say as late because we had already been in Europe for 35 years, we were depending on the German PTT [Post, telephone, and telegraph]. The Corps Commander of VII Corps said, 'I am all set because of a backbone land-line to several places where I plan to deploy my Corps Headquarters.' High speed radio-telegraph was still 75 baud....There wasn't a lot of good tactical communications."¹ During those years, intelligence communications were so bad that Flash message traffic would back up as much as 72 hours during exercises. Division commanders were asking for the intelligence reports to be hand carried, since a three- or four-hour drive was preferable to a three-day wait. General Williams and his staff were forced to scrounge an unused land-line communications van when the headquarters moved to the alternate war location. Since it was not on his property book, maintaining it was nearly impossible.²

Not only were communications very difficult, but the intelligence staff also had almost no automated capability. "We had almost no data processing, no ability to handle data, to automate our collection requirements at DCSI USAREUR."³ Their solution to the collection management problem was to buy several stand-alone word processors to automate the Guardrail missions each day and then to integrate the human intelligence (HUMINT) taskings. "As

rudimentary as it was," said General Williams, "that was a giant step forward, just being able to see that stuff on one piece of paper in the morning."⁴

Partially as a result of these experiences, and partially as a result of his many years in intelligence, General Williams, as Director, Defense Intelligence Agency (DIA), focused his agency's efforts on providing the highest quality intelligence to deployed commanders. In an article in Signal in 1984, he wrote:

To support crisis deployments, we must provide an intelligence support system that is dependable, mobile, and survivable in the dynamic environment generated by crisis, as well as that created on the battlefield. While these systems must be highly durable and easily maintained to meet the needs of consumers such as the United States Central Command, they must also be compatible with existing communications systems such as those developed over the years in the European Theater.⁵

He stressed the need for the system to work both ways. It had to provide information for policy and strategy formulation at higher echelons, while at the same time facilitating the downward and lateral dissemination of command decisions. "It must provide," he wrote, "the on-scene commander with rapid, direct access to the national intelligence systems, data bases and analytical expertise. The system in the aggregate, must eventually be able to handle secure data transfers."⁶

Later that year, General Williams laid out a detailed analysis of the intelligence communications challenge and an approach to solving the problem. In an article titled

"INCA: The Issues and Opportunities," he announced the formation within DIA of the Intelligence Communication Architecture (INCA) Project Office, and he spelled out the process by which DIA, supported by Congress, was taking the first step in launching a coordinated attack on the problem of improving the flow of timely, useful information to the tactical commanders.⁷

Drawing from the terrible experiences of the U.S. deployment to Grenada, he outlined the INCA project in 1984 with both short- and long-term goals. The short-term goal was "to assist the defense agencies, services, and commands in achieving solutions to current critical intelligence communications problems."⁸ The longer term goal was to develop an architecture which would guide the acquisition of new systems as well as address the development of new operating procedures, policy and organizational issues affecting the intelligence process and the flow of intelligence to the user.

At that time, he envisioned an architecture centered in the early 1990s which would address communication implications in three different communities: those of the user, the producer, and the communicator. He wrote:

The intelligence user has a major impact because his expression of intelligence needs dictates the type and amount of intelligence he can expect to receive. The intelligence producer is responsible for input to the system. The producer can overload communications by sending excessive, unnecessary, or duplicated intelligence data. The communicator has the job of providing the proper connectivity and appropriate priority to ensure

acceptable delivery.⁹

He envisioned a phased project which would, in its final phases, take into account the relevant communications techniques, technologies, and expectations for the near- and mid-term. He saw a coordinated effort to provide a more effective intelligence system by identifying initiatives in both the intelligence and communications communities. Combining these initiatives would result in improved intelligence support to tactical users.¹⁰

With the deployment to Saudi Arabia in the fall of 1990, we had a chance to assess this seven-year effort. When asked to characterize the success of his earlier efforts and to describe the progress, General Williams responded that there had been

Almost none. What they are finding in Desert Shield is that despite what was then called the INCA Project, and the theoretical discussions, and some of the actual tests...there was a lot of talk. The intelligence types never really convinced the communicators of the volume of our requirements. The communicators never really told the intelligence types the limitations on their equipment or the frequencies that would constrain their channels. What they are finding in Desert Shield right now is that they just don't have enough comms to support the intelligence. We were always told that you can't have dedicated channels because you chew up too much frequency. With the kinds of imagery and SIGINT that you need, if you don't have dedicated channels, the commander is not going to have the support. That is what they are finding right now.¹¹

Perhaps the most distressing part of General Williams' current assessment is that the INCA Project Office continues to provide a somewhat rosy view of the current intelligence

communication structure. Mr. Harry C. Banford, Director of the INCA Project Office since 1985, wrote in early 1990, "Several specially focused architectural efforts have been undertaken to improve intelligence support."¹² He describes the many coordinated efforts undertaken by the INCA Project Office and the participation in "a variety of conferences and consortia to provide for the exchange of technical information on developments in the field of communications." He outlines continuing standardization and interoperability efforts as well as the conduct of a variety of tests and demonstrations of communications technologies. While citing the many facets of intelligence communications that the project office has been involved in over the past years, Mr. Banford also recognizes the challenge for the future.

We must continue to explore means of command, control, and intelligence using alternate capabilities to back up our power sensitive and frequency saturating high capacity systems. So as we plan to use more of the multimedia communications capabilities and techniques, we must continue to assess the problems we may face as well as the advantages we will achieve....We will continue our efforts to find ways to provide for better use of technology in the intelligence process and to manage that technology without losing the tremendous potential modern communications hold in store.¹³

While the concluding words of this article are generally on track they offer precious few specific examples of success. It seems unfortunate but possible that the INCA Project Office has become yet another bureaucratic layer that is very good at stating the obvious while proving unable to fix the very real problems it was intended to

correct. To be fair, one must recognize that Mr. Banford's article was written before Desert Storm, but General Williams' characterization, that this has been mostly talk, seems more accurate.

DESERT SHIELD/DESERT STORM:

When looking at the intelligence communications of Desert Shield/Desert Storm, we are beginning to see the same old problems that date back to the early 1980s. The difference between the deployment to Saudi Arabia and that to Grenada (which in large part led to the INCA Project), is the advantage of having six months to fix the problems before the shooting started.

When Army, Navy, and Air Force units deployed to the Middle East, they took with them nine different intelligence collection and analysis systems which could not communicate with each other. According to Rear Admiral Thomas Brooks, Chief of Naval Intelligence, the systems performed much the same function, but they could not share data.¹⁴

'Interoperability is a word, not a fact,' Brooks said, speaking March 11 at a technical symposium sponsored by the Armed Forces Communications and Electronics Association. He noted that it required a herculean effort to cobble together a network that would enable Navy ships in the region to receive intelligence data from the Air Force.¹⁵

Admiral Brooks also recognized that intelligence agencies have no trouble producing vast amounts of data, but all the services have problems developing systems which display that data in a meaningful way and which commanders

can use to adjust information to their needs in a timely fashion.

Another manifestation of the problem was seen in Desert Storm as the Army tried to use its primary deep-strike weapon system, the Army Tactical Missile System (ATACMS). The ATACMS missile is launched from the Multiple Launch Rocket System (MLRS) after it receives firing instructions from command centers. These command centers select targets using information gathered by long-range sensors such as the Joint Surveillance and Target Attack Radar System (JSTARS). Even though the ATACMS and the JSTARS systems were available in the Gulf, the command and control systems needed to transfer the targetting data to the missiles were not available.¹⁶

Intended by the Army to be used as a deep-strike system against moving targets located deep behind enemy lines, the ATACMS is a very accurate system which fires 950 bomblets at least 60 miles. While it was used successfully against an Iraqi antiaircraft missile site, "seven of nine attempts to launch the missile were aborted because troops were unable to feed guidance instructions into the missile quickly enough."¹⁷ They were unable to kill the targets before they moved. Although the system is designed to hit its target within a few minutes of its detection, the existing communication and control system would not support the rapid transmission of data.

General Williams, Admiral Brooks, and the failure to use ATACMS as it was intended, all point to the same problem, one identified more than a decade ago -- the intelligence community and the communications community are not yet working together. This failure is even more critical as the Army looks to the development of its doctrine for the decade of the 1990s and beyond.

THE FUTURE

The AirLand Battle Future (ALBF) concept, as articulated by the Training and Doctrine Command (TRADOC), envisions a future battlefield that is less dense and more lethal. It is less dense because arms control agreements and the high cost of modern technology will force smaller armies. This battlefield will have large gaps between forces at the operational and at the tactical levels. At the same time, the battlefield will be more lethal--a direct result of enhanced direct fire systems and real-time intelligence about forces on the battlefield.

The ALBF concepts, which derive from this nonlinear battlefield, center on the role of technology, particularly sensor technology, to fill the gaps between widely dispersed forces. In the detection zone, out to 500 kilometers forward of the corps dispersal area, the corps commander will use national, theater, and organic assets (Guardrail and JSTARS) to find the enemy. Emphasizing the importance of maneuver, the doctrine seeks to avoid "head-to-head,"

attrition warfare. It seeks instead to hit enemy forces in the flank or in the rear. The goal will be to gain and maintain the initiative, to stay on the offense. Major General Stephen Silvasy Jr., Deputy Chief of Staff for Concepts, Doctrine and Developments, U.S. Army TRADOC, has written,

The better our long-range intelligence and fires, the shorter the final close combat battle. These tactics will allow us to bring overwhelming force to bear to destroy the enemy at the time and place his forces are most vulnerable. Maneuver units will be committed to the decisive stage, maneuvering through gaps to attack the flanks and rear of significantly weakened enemy forces.¹⁸

Not only do we envision a future battlefield and a doctrine which depend greatly upon the success of the intelligence communications architecture, but we also see a world which requires substantially fewer forward-deployed forces and greater reliance on CONUS-based contingency forces. The implication is, of course, that just as we had to do in Grenada and in Desert Storm, the intelligence system must be able to operate in the contingency environment. In Panama, we enjoyed the presence of a sizeable infrastructure which included organic intelligence and communications assets. In Desert Storm, as has already been pointed out, we had six months to overcome the challenges and cobble together a system which would work -- most of the time. In the future, we cannot expect to be so fortunate. It seems absolutely vital that we fix what we know is broken. The time has come for the Army, for the

whole of the Department of Defense, to do more than talk. We know what the problem is -- General Williams articulated it very clearly seven years ago. Now, we must force the corrective measures.

The Assistant Secretary of Defense (Command, Control, Communications, and Intelligence), Mr. Duane Andrews, must exert greater control over both the intelligence and the communications communities to correct the continued shortcomings. As one of the key subordinates to the Under Secretary of Defense for Acquisition, Mr. Andrews seems particularly well placed to exert the right pressure. His efforts will succeed only with the cooperation and support of the many players involved. All three of the key players, the intelligence producer, the user, and the communicator, must work together to improve the flow of timely, useful information to tactical commanders.

The failures of our involvement in Grenada led to the development of the INCA Project. The failures of our involvement in the Gulf conflict should lead to a reinvigorated awareness of how far we must yet go, of how much must yet be accomplished.

ENDNOTES

1. Interview with James A. Williams, LTG (USA,Ret), Annandale, Virginia, 27 December 1990.
2. Ibid.
3. Ibid.
4. Ibid.
5. James A. Williams, LTG, USA, "Intelligence: The Force Multiplier in Crisis," Signal, May 1984, p.66.
6. Ibid.
7. James A. Williams, LTG, USA, "INCA: The Issues and The Opportunities," Signal, September 1984, pp. 25-31.
8. Ibid., p. 25.
9. Ibid., p. 29.
10. Ibid., p. 31.
11. Interview with James A. Williams, LTG (USA,Ret), Annandale, Virginia, 14 December 1990.
12. Harry C. Banford, "Intelligence Communications in a Changing World," American Intelligence Journal, Summer/Fall 1990, p. 21.
13. Ibid., p. 22.
14. "Network Put Services on Speaking Terms in Gulf," Army Times, 1 April 1991, p. 32.
15. Ibid.
16. "Slow Targetting Stymies Rapid-response System," Army Times, 25 February 1991, p. 28.
17. Ibid.
18. Stephen Silvasy, Jr., MG, USA, "AirLand Battle Future: The Tactical Battlefield," Military Review, February 1991, p. 4.

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